

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An osteogenic treatment device for bone formation, comprising:

a recombinant plasmid as shown in Figure 1 ~~nucleic acid~~ containing a ~~base~~ nucleic acid sequence coding for bone morphogenetic protein-2 (BMP-2); protein (BMP) and ~~a base sequence derived from an expression plasmid;~~

~~an angiogenesis factor~~ basic Fibroblast Growth Factor (bFGF) for promoting bone formation;

~~a non-viral vector~~ a cationic liposome ~~for holding the nucleic acid~~ for adsorbing the recombinant plasmid to the surface thereto; and

a biocompatible ~~base body~~ porous block body comprising a material having positive and negative charges chosen from hydroxyapatite and tricalcium phosphate;

wherein the porous block body is impregnated with the recombinant plasmid, the bFGF, and the cationic liposome, so that the recombinant plasmid adsorbed to the cationic liposome is carried by the porous block body, and

wherein the angiogenesis factor is mixed with the nucleic acid, in which the mixing ratio between the angiogenesis factor bFGF and the nucleic acid recombinant plasmid is in the range of about 10:1 to 1:100 by weight.

2. (Currently Amended) The osteogenic treatment device as claimed in claim 1, wherein the ~~base body is constructed from a porous block body having~~ has interconnecting holes in which the adjacent interconnecting holes communicate to each other.

3. (Currently Amended) The osteogenic treatment device as claimed in claim 2, wherein in a case where the area (average) of boundary parts between the holes adjacent to each other in the ~~base~~ porous block body is defined as A (μm^2) and the maximum cross-sectional area (average) of the holes is defined as B (μm^2), the value of B/A is in the range of 2 to 150.

4. (Previously Presented) The osteogenic treatment device as claimed in claim 2, wherein the maximum cross-sectional area (average) B of the holes is in the range of about 7.9×10^3 to $1.1 \times 10^6 \mu\text{m}^2$.

5. (Previously Presented) The osteogenic treatment device as claimed in claim 2, wherein the porosity of the ~~base~~ porous block body is in the range of 30 to 95%.

6.-7. (Canceled)

8. (Currently Amended) The osteogenic treatment device as claimed in claim 1, wherein the amount of the recombinant plasmid ~~nucleic acid~~ to be used is in the range of about 1 to 100 µg per 1 mL of the base porous block body.

9.-10. (Canceled)

11. (Currently Amended) The osteogenic treatment device as claimed in claim 1, wherein the mixing ratio between the cationic liposome ~~non-viral vector~~ and the recombinant plasmid ~~nucleic acid~~ is in the range of 1:1 to 20:1 by weight.

12.-15. (Canceled)

16. (Currently amended) An osteogenic treatment device for bone formation, comprising:

~~nucleic acid~~ a recombinant plasmid as shown in Figure 1 containing a ~~base~~ nucleic acid sequence coding for bone morphogenetic ~~protein (BMP)~~ protein-2 (BMP-2) and ~~a base sequence derived from an expression plasmid;~~

~~an angiogenesis factor~~ basic Fibroblast Growth Factor (bFGF) for promoting bone formation;

~~a non-viral vector~~ a cationic liposome for holding the ~~nucleic acid~~ for adsorbing the recombinant plasmid to the surface thereto; and

~~a biocompatible base body being constructed from a porous block body~~ having interconnecting holes in which the adjacent interconnecting holes

communicate with each other, the porous block body comprising a material having positive and negative charges chosen from hydroxyapatite and tricalcium phosphate;

wherein the porous block body is impregnated with the recombinant plasmid, the bFGF, and the cationic liposome so that the recombinant plasmid adsorbed to the cationic liposome is carried by the porous block body;

~~wherein the angiogenesis factor is mixed with the nucleic acid, in which~~
the mixing ratio between the angiogenesis factor bFGF and the ~~nucleic acid~~
recombinant plasmid is in the range of about 10:1 to 1:100 by weight, and
wherein in a case where the area (average) of boundary parts between the holes
adjacent to each other in the ~~base~~ porous block body is defined as A (μm^2) and
the maximum cross-sectional area (average) of the holes is defined as B (μm^2),
the value of B/A is in the range of 2 to 150.

17. (New) The osteogenic treatment device as claimed in claims 1 or 16,
wherein the recombinant plasmid adsorbed to the cationic liposome is carried by
the porous block body through the cationic liposome.

18. (New) The osteogenic treatment device as claimed in claims 1 or 16,
wherein the bFGF promotes the bone formation with the BMP-2 being produced
by using the recombinant plasmid as a template.